

Notice of Allowability

Application No.

09/926,068

Examiner

Matthew W. Genack

Applicant(s)

KAWAI ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 14 December 2006.
2. ☒ The allowed claim(s) is/are 1-2, 5-13, 15-28, 30-40, and 42-50.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.


THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 13 March 2007
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.


DUC M. NGUYEN
SUPERVISORY PRIMARY EXAMINER
TECHNOLOGY CENTER 2600

DETAILED ACTION***Allowable Subject Matter***

1. Claims 1-2, 5-13, 15-28, 30-40, and 42-50 are allowed.

Regarding Claims 1, 12, 26, 38, and 50, Kuo *et. al.*, U.S. Patent No. 6,542,718, discloses a method and apparatus for terminating a burst transmission in a wireless system, said wireless system comprising a mobile unit and a base station, said burst transmission originating at said mobile unit and being received by said base station (Abstract, Column 3 Lines 16-28, Figs. 1-3). The transmission power is determined in accordance with the conditions between the mobile unit and the base station, said conditions including the degree of fading in the path between the mobile unit and the base station (Column 2 Lines 29-37, Column 7 Line 64 to Column 8 Line 7). The burst transmission is terminated or is not terminated based on a comparison involving at least one criterion pertaining to the operation of the wireless system, such as the degree of interference in the link (Abstract, Column 3 Lines 16-28, Column 8 Lines 32-41, Fig. 3). Kuo *et. al.* discloses that the serving base station sends out a burst assignment to the mobile unit whereby the length and data rate of the burst are set; the burst transmission is initiated, and it is determined whether or not the end of the data has been reached before termination of the transmission (Column 6 Lines 24-32, Fig. 3).

Kuo *et. al.* does not expressly disclose the use of a transmission waiting state in the determination of whether or not to transmit a signal.

Tanaka *et. al.*, U.S. Patent No. 5,339,317, discloses a packet

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communication network and method wherein data is transmitted between nodes with the use of cell slots (Abstract, Column 12 Lines 20-25, Fig. 1). Each node conducts state transition processing based on the number of transmission wait-state cells in a given signal, and the transmission of said signal is based on the results of said state transition processing (Column 3 Lines 8-25).

At the time that the invention was made, it would have been obvious to one of ordinary skill in the art to modify the invention of Kuo *et. al.* by providing the ability to determine whether or not a signal is to be transmitted based on the transmission waiting state of said signal.

One of ordinary skill in the art would have been motivated to make this modification in order to increase network throughput, efficiency, fairness between nodes, and efficiency (Tanaka *et. al.*: Column 12 Lines 13-19).

Neither Kuo *et. al.* nor Tanaka *et. al.* expressly discloses the act of determining that a signal transmission permission criterion is made based on a channel state, whereby said signal transmission permission criterion is made easier as the transmission waiting time is increased, and said signal transmission permission criterion is made more difficult as the transmission waiting time is decreased. No prior art reference was found that discloses this feature. Therefore, Claims 1, 12, 26, 38, and 50 are allowable.

Claims 2 and 5-11, 13 and 15-25, 27-28 and 30-37, 39-40 and 42-49 depend on Claims 1, 12, 26, and 38, respectively, and are therefor allowable.

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Response to Arguments

2. Applicant's arguments, filed 14 December 2006, with respect to Claims 1-2, 5-13, 15-28, 30-40, and 42-50 have been fully considered and are persuasive. The rejections of Claims 1-2, 5-13, 15-28, 30-40, and 42-50 have been withdrawn.

EXAMINER'S AMENDMENT

3. An Examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The application has been amended as follows:

- Claim 5 has been renumbered as Claim 3
- Claim 6 has been renumbered as Claim 4
- Claim 7 has been renumbered as Claim 5
- Claim 8 has been renumbered as Claim 6
- Claim 9 has been renumbered as Claim 7
- Claim 10 has been renumbered as Claim 8
- Claim 11 has been renumbered as Claim 9
- Claim 12 has been renumbered as Claim 10
- Claim 13 has been renumbered as Claim 11
- Claim 15 has been renumbered as Claim 12
- Claim 16 has been renumbered as Claim 13
- Claim 17 has been renumbered as Claim 14

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- Claim 18 has been renumbered as Claim 15
- Claim 19 has been renumbered as Claim 16
- Claim 20 has been renumbered as Claim 17
- Claim 21 has been renumbered as Claim 18
- Claim 22 has been renumbered as Claim 19
- Claim 23 has been renumbered as Claim 20
- Claim 24 has been renumbered as Claim 21
- Claim 25 has been renumbered as Claim 22
- Claim 26 has been renumbered as Claim 23
- Claim 27 has been renumbered as Claim 24
- Claim 28 has been renumbered as Claim 25
- Claim 30 has been renumbered as Claim 26
- Claim 31 has been renumbered as Claim 27
- Claim 32 has been renumbered as Claim 28
- Claim 33 has been renumbered as Claim 29
- Claim 34 has been renumbered as Claim 30
- Claim 35 has been renumbered as Claim 31
- Claim 36 has been renumbered as Claim 32
- Claim 37 has been renumbered as Claim 33
- Claim 38 has been renumbered as Claim 34
- Claim 39 has been renumbered as Claim 35
- Claim 40 has been renumbered as Claim 36

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- Claim 42 has been renumbered as Claim 37
- Claim 43 has been renumbered as Claim 38
- Claim 44 has been renumbered as Claim 39
- Claim 45 has been renumbered as Claim 40
- Claim 46 has been renumbered as Claim 41
- Claim 47 has been renumbered as Claim 42
- Claim 48 has been renumbered as Claim 43
- Claim 49 has been renumbered as Claim 44
- Claim 50 has been renumbered as Claim 45

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew W. Genack whose telephone number is 571-272-7541. The examiner can normally be reached on Flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc Nguyen can be reached on 571-272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Matthew Genack

Examiner

TC-2600, Division 2617



20 April 2007



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